



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/789,143	02/27/2004	Jeffrey A. Tilton	25363A	9278
22889	7590	07/16/2007	EXAMINER	
OWENS CORNING 2790 COLUMBUS ROAD GRANVILLE, OH 43023				PIZALI, ANDREW T
ART UNIT		PAPER NUMBER		
1771				
MAIL DATE		DELIVERY MODE		
07/16/2007		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/789,143	TILTON ET AL.	
	Examiner	Art Unit	
	Andrew T. Piziali	1771	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 14 June 2007.
 2a) This action is **FINAL**. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-25 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
 5) Claim(s) _____ is/are allowed.
 6) Claim(s) 1-25 is/are rejected.
 7) Claim(s) _____ is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on 27 February 2004 is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) <input type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413)
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	Paper No(s)/Mail Date. _____
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)	5) <input type="checkbox"/> Notice of Informal Patent Application
Paper No(s)/Mail Date _____	6) <input type="checkbox"/> Other: _____

DETAILED ACTION

Response to Amendment

1. The response filed on 6/14/2007 has been entered.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
3. Claims 10 and 20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is not clear what heat resistance is encompassed by a "high heat resistance."

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claim 25 is rejected under 35 U.S.C. 102(b) as being anticipated by USPN 5,616,408 to Oleszczuk or USPN 5,804,512 to Lickfield.

Art Unit: 1771

Oleszczuk and Lickfield each disclose an article comprising a first layer of wet processed mat (14), and a second layer of wet processed mat (16), wherein said first and/or second layer comprises thermoplastic polymer staple fibers and thermoplastic bicomponent fibers (see entire documents including the paragraph bridging columns 11 and 12 of Oleszczuk and column 9, lines 12-20 of Lickfield). Oleszczuk and Lickfield each disclose that the first and second layers may be thermally bonded (see column 8, lines 55-63 of Oleszczuk and column 4, lines 59-67 of Lickfield).

It is the examiner's position that the first or second layer of wet processed mat taught by the applied prior art is identical to the claimed liner/insulator. Although the current claims refer to directly bonding a first, second, and third layer of wet processed mat to form the claimed liner/insulator, the claims do not distinguish between the first, second, and third layers. Therefore, a single mass of wet processed bonded fibrous mat comprising thermoplastic polymer staple fibers and thermoplastic bicomponent fibers can be considered a multi-layer article comprising multiple layers of identical fibers.

6. Claims 1-5, 11, 12 and 25 are rejected under 35 U.S.C. 102(b) as being anticipated by USPN 6,022,818 to Welchel.

Regarding claims 1-5, 11, 12 and 25, Welchel discloses an article comprising a first layer of air-laid processed mat (114), a second layer of air-laid processed mat (106), and a third layer of air-laid processed mat (108), wherein said layers comprise thermoplastic polymer staple fibers and thermoplastic bicomponent fibers (see entire documents including column 5, lines 35-65 and column 7, lines 4-21). Welchel discloses that the layers may be thermally bonded (column 7, lines 22-53).

Art Unit: 1771

It is the examiner's position that the article of the applied prior art (air-laid) is identical to or only slightly different than the claimed article (wet-laid). Even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process. *In re Thorpe*, 227 USPQ 964, 966 (Fed. Cir. 1985). The burden has been shifted to the applicant to show an unobvious difference between the claimed product and the prior art product. *In re Marosi*, 218 USPQ 289 (Fed. Cir. 1983). The applied prior art either anticipated or strongly suggested the claimed subject matter.

Regarding claims 1-5, 11 and 12, Welchel discloses that the first and second layers may have fibers of different fiber formulations (see entire document including Figure 2, column 2, lines 17-18, column 5, lines 35-65, and column 7, lines 4-20).

Regarding claim 3, Welchel discloses that the fibers may consist of polyester and polyethylene (Examples).

Regarding claims 4 and 5, Welchel discloses that the layers may be thermally bonded by heat and pressure (column 7, lines 22-53).

Regarding claim 11, Welchel discloses that the fibers may comprise polyethylene (Examples), which is inherently hydrophobic.

Regarding claim 12, Welchel discloses that the third layer may include pulp or cotton fibers (column 4, lines 30-43), which are inherently sound absorbent.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 1-5, 9-15, 19-22 and 24-25 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 5,616,408 to Oleszczuk or USPN 5,804,512 to Lickfield, in view of USPN 6,022,818 to Welchel.

Regarding claims 1-5, 9-15, 19-22 and 24-25, Oleszczuk and Lickfield each disclose an article comprising a first supporting layer of wet processed mat (14), a meltblown thermoplastic fiber layer (12), and a second supporting layer of wet processed mat (16), wherein said first and/or second layer comprises thermoplastic polymer staple fibers and thermoplastic bicomponent fibers (see entire documents including the paragraph bridging columns 11 and 12 of Oleszczuk and column 9, lines 12-20 of Lickfield). Oleszczuk and Lickfield each disclose that the layers of the article may be directly thermally bonded (see column 8, lines 55-63 of Oleszczuk and column 4, lines 59-67 of Lickfield).

Oleszczuk and Lickfield each disclose that additional “supporting” (wet processed bicomponent staple fiber mat) layers may be added to the article (see column 8, lines 64-67 and the paragraph bridging columns 12 and 13 of Oleszczuk and column 5, lines 1-4 and column 10, lines 10-23 of Lickfield), but the references do not appear to specifically mention at least one adjacent additional layer of different fiber formulation. Welchel discloses that it is known in the nonwoven laminate fabric art (column 1, lines 11-20) to directly bond an additional

Art Unit: 1771

thermoplastic bicomponent staple nonwoven layer (105) with a different fiber formulation (smaller denier) to an adjacent thermoplastic bicomponent staple nonwoven layer (102), so that the surface is more aesthetically pleasing to the touch and more comfortable to the user (see entire document including Figure 2, column 2, lines 17-18, column 5, lines 35-65, and column 7, lines 4-20). It would have been obvious to one having ordinary skill in the art at the time the invention was made to directly bond an additional wet processed bicomponent staple fiber mat supporting layer, with a different fiber formulation (smaller denier), to the first or second layer of wet processed mat (14 or 16), because the additional wet processed bicomponent staple fiber mat supporting layer would allow the surface be more aesthetically pleasing to the touch and more comfortable to the user.

Regarding claims 3 and 15, Oleszczuk and Lickfield each disclose that the fibers may be polyester, polyethylene, and/or PET (see column 8, lines 22-54 and column 12, lines 43-56 of Oleszczuk and column 3, lines 55-67 and column 10, lines 1-9 of Lickfield).

Regarding claims 4, 5 and 13, Oleszczuk and Lickfield each disclose that the layers may be thermally bonded (see column 8, lines 55-63 of Oleszczuk and column 4, lines 59-67 of Lickfield). It is noted that Welchel also discloses that the thermoplastic bicomponent staple fiber nonwoven layers (105 and 102) are to be directly bonded (45-48).

Regarding claims 9 and 19, Oleszczuk and Lickfield each disclose that the outer layer may be hydrophilic (see column 12, lines 31-43 of Oleszczuk and column 4, lines 1-17 of Lickfield).

Art Unit: 1771

Regarding claims 10 and 20, Oleszczuk and Lickfield each disclose that the outer layer may be flame retardant (heat resistant) (see column 12, lines 31-43 of Oleszczuk and column 9, lines 52-63 of Lickfield).

Regarding claims 11 and 21, Oleszczuk and Lickfield each disclose that the fibers may comprise polyethylene(column 8, lines 22-54 of Oleszczuk and column 3, line 55 through column 4, line 17 of Lickfield), which is inherently hydrophobic.

Regarding claims 12 and 22, Oleszczuk and Lickfield each disclose that the fibers may include natural fibers such as cotton or wool (see column 8, lines 37-54 of Oleszczuk and column 4, lines 1-17 of Lickfield), which are inherently sound absorbent.

Regarding claim 24, the first and second layers have different fiber compositions because one layer is composed of fibers with a small diameter while the other layer is composed of fibers with a larger diameter. In addition, Oleszczuk and Lickfield each disclose that at least one of the outer webs may be treated with a treatment agent to render any one of a number of desired properties to the fabric (column 12, lines 31-43 of Oleszczuk and column 4, lines 1-17 of Lickfield). Therefore, the first and second layers would have different fiber compositions because the outer layer would be composed of fibers comprising a treatment agent while the inner layer would be composed of fibers not comprising a treatment agent.

Regarding claim 25, it is the examiner's position that the first or second layer of wet processed mat taught by the applied prior art is identical to the claimed liner/insulator. Although the current claims refer to directly bonding a first, second, and third layer of wet processed mat to form the claimed liner/insulator, the claims do not distinguish between the first, second, and third layers. Therefore, a single mass of wet processed bonded fibrous mat comprising

Art Unit: 1771

thermoplastic polymer staple fibers and thermoplastic bicomponent fibers can be considered a multi-layer article comprising multiple layers of identical fibers.

9. Claims 6-8 and 16-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 5,616,408 to Oleszczuk or USPN 5,804,512 to Lickfield, in view of USPN 6,022,818 to Welchel as applied to claims 1-5, 9-15, 19-22 and 24-25 above, and further in view of USPN 4,813,948 to Insley.

Oleszczuk and Lickfield are each silent with regards to specific layer thicknesses, therefore, it would have been necessary and thus obvious to look to the prior art for conventional thicknesses. Insley provides this conventional teaching showing that it is known in the nonwoven barrier fabric art to use layer thicknesses ranging from 0.02 to 4 cm (see entire document including column 3, lines 43-62 and column 11, lines 39-51). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to make the layers with a thickness ranging from 0.02 to 4 cm, motivated by the expectation of successfully practicing the invention of Oleszczuk and/or Lickfield.

10. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 5,616,408 to Oleszczuk or USPN 5,804,512 to Lickfield, in view of USPN 6,022,818 to Welchel as applied to claims 1-5, 9-15, 19-22 and 24-25 above, and further in view of any one of USPN 6,548,431 to Bansal or USPN 4,508,113 to Malaney.

Oleszczuk and Lickfield each disclose that the fibers may be bicomponent fibers comprising a polyethylene sheath (see column 12, lines 44-56 of Oleszczuk and column 10, lines 1-9 of Lickfield), but Oleszczuk and Lickfield are each silent with regards to a specific bonding temperature. Therefore, it would have been necessary and thus obvious to look to the prior art

Art Unit: 1771

for conventional bonding temperatures. Bansal and Malaney each provide this conventional teaching showing that it is known in the art to use a bonding temperature within a range of about 100 to about 150C (about 200 to 300F) when bonding polyethylene (see entire documents including column 8, lines 22-38 of Malaney and column 14, lines 37-52 of Bansal). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to apply heat at a temperature range of 200 to 300F, motivated by the expectation of successfully practicing the invention of Oleszczuk and/or Lickfield.

11. Claims 6-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 6,022,818 to Welchel as applied to claims 1-5, 11, 12 and 25 above, and further in view of USPN 4,813,948 to Insley.

Welchel is silent with regards to thickness ranges, therefore, it would have been obvious to look to the prior art for conventional thicknesses. Insley provides this conventional teaching showing that it is known in the nonwoven barrier fabric art to use layer thicknesses ranging from 0.02 to 4 cm (see entire document including column 3, lines 43-62 and column 11, lines 39-51). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to make the layers with a thickness ranging from 0.02 to 4 cm, motivated by the expectation of successfully practicing the invention of Insley.

12. Claims 9-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 6,022,818 to Welchel as applied to claims 1-5, 11, 12 and 25 above, and further in view of USPN 5,616,408 to Oleszczuk or USPN 5,804,512 to Lickfield.

Regarding claims 9, Welchel does not appear to mention a hydrophilic first layer, but Oleszczuk and Lickfield each disclose that it is known in the art to make the outer layer of a

Art Unit: 1771

liner/insulator hydrophilic (see column 12, lines 31-43 of Oleszczuk and column 4, lines 1-17 of Lickfield). It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the first layer from any suitable mat material, such as a hydrophilic material, because it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability and desired characteristics.

Regarding claims 10, Welchel does not appear to mention the first layer having a high heat resistance, but Oleszczuk and Lickfield each disclose that it is known in the art to make the outer layer of a liner/insulator flame retardant (heat resistant) (see column 12, lines 31-43 of Oleszczuk and column 9, lines 52-63 of Lickfield). It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the first layer from any suitable mat material, such as a flame retardant material, because it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability and desired characteristics.

13. Claims 1-5, 11-15, 21-22 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 6,022,818 to Welchel in view of anyone of USPN 5,958,186 to Holm, USPN 6,692,606 to Cederblad, or USPN 6,761,710 to D'Acchioli.

Welchel discloses an article comprising a first layer of air-laid processed mat (114), a second layer of air-laid processed mat (106), and a third layer of air-laid processed mat (108), wherein said layers comprise thermoplastic polymer staple fibers and thermoplastic bicomponent fibers (see entire documents including Figure 2, column 5, lines 35-65 and column 7, lines 4-21). Welchel discloses that the layers may be thermally bonded (column 7, lines 22-53).

Art Unit: 1771

Welchel discloses that the layers may be formed by air-laying (column 7, lines 54-62), but Welchel does not appear to specifically mention a wet-laid process. In the event that it is shown that an air-laid mat is patentably distinct from a wet-laid mat, Holm, Cederblad, and D'Acchioli each disclose that it is known in the art to form mats by a wet-laid or dry-laid process (see entire documents including column 1, lines 10-29 of Holm, column 4, lines 37-50 of Cederblad, and column 3, lines 14-40 of D'Acchioli). It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the mat from any suitable nonwoven material, such as dry-laid or wet-laid, because it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability and desired characteristics.

Regarding claims 1-5, 11-15, 21 and 22, Welchel discloses that the first and second layers may have fibers of different fiber formulations (see entire document including Figure 2, column 2, lines 17-18, column 5, lines 35-65, and column 7, lines 4-20).

Regarding claims 3 and 15, Welchel discloses that the fibers may consist of polyester and polyethylene (Examples).

Regarding claims 4, 5, 13-15, 21 and 22, Welchel discloses that the layers may be thermally bonded by heat and pressure (column 7, lines 22-53).

Regarding claims 11 and 21, Welchel discloses that the fibers may comprise polyethylene (Examples), which is inherently hydrophobic.

Regarding claims 12 and 22, Welchel discloses that the third layer may include pulp or cotton fibers (column 4, lines 30-43), which are inherently sound absorbent.

Art Unit: 1771

14. Claims 6-8 and 16-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 6,022,818 to Welchel in view of anyone of USPN 5,958,186 to Holm, USPN 6,692,606 to Cederblad, or USPN 6,761,710 to D'Acchioli as applied to claims 1-5, 11-15, 21-22 and 25 above, and further in view of USPN 4,813,948 to Insley.

Welchel is silent with regards to thickness ranges, therefore, it would have been obvious to look to the prior art for conventional thicknesses. Insley provides this conventional teaching showing that it is known in the nonwoven barrier fabric art to use layer thicknesses ranging from 0.02 to 4 cm (see entire document including column 3, lines 43-62 and column 11, lines 39-51). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to make the layers with a thickness ranging from 0.02 to 4 cm, motivated by the expectation of successfully practicing the invention of Insley.

15. Claims 9, 10, 19, 20 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 6,022,818 to Welchel in view of anyone of USPN 5,958,186 to Holm, USPN 6,692,606 to Cederblad, or USPN 6,761,710 to D'Acchioli as applied to claims 1-5, 11-15, 21-22 and 25 above, and further in view of USPN 5,616,408 to Oleszczuk or USPN 5,804,512 to Lickfield.

Regarding claims 9 and 19, Welchel does not appear to mention a hydrophilic first layer, but Oleszczuk and Lickfield each disclose that it is known in the art to make the outer layer of a liner/insulator hydrophilic (see column 12, lines 31-43 of Oleszczuk and column 4, lines 1-17 of Lickfield). It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the first layer from any suitable mat material, such as a hydrophilic

Art Unit: 1771

material, because it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability and desired characteristics.

Regarding claims 10 and 20, Welchel does not appear to mention the first layer having a high heat resistance, but Oleszczuk and Lickfield each disclose that it is known in the art to make the outer layer of a liner/insulator flame retardant (heat resistant) (see column 12, lines 31-43 of Oleszczuk and column 9, lines 52-63 of Lickfield). It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the first layer from any suitable mat material, such as a flame retardant material, because it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability and desired characteristics.

Regarding claim 24, the first and second layers have different fiber compositions because one layer is composed of fibers with a small diameter while the other layer is composed of fibers with a larger diameter. In addition, Oleszczuk and Lickfield each disclose that at least one of the outer webs may be treated with a treatment agent to render any one of a number of desired properties to the fabric (column 12, lines 31-43 of Oleszczuk and column 4, lines 1-17 of Lickfield). It would have been obvious to one having ordinary skill in the art at the time the invention was made to treat at least one of the outer webs with a treatment agent to render any one of a number of desired properties to the fabric. Therefore, the first and second layers would have different fiber compositions because the outer layer would be composed of fibers comprising a treatment agent while the inner layer would be composed of fibers not comprising a treatment agent.

Art Unit: 1771

16. Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 6,022,818 to Welchel in view of anyone of USPN 5,958,186 to Holm, USPN 6,692,606 to Cederblad, or USPN 6,761,710 to D'Acchioli as applied to claims 1-5, 11-15, 21-22 and 25 above, and further in view of any one of USPN 6,548,431 to Bansal or USPN 4,508,113 to Malaney.

Welchel discloses that the fibers may be bicomponent fibers comprising a polyethylene sheath (Examples), but Welchel is silent with regards to a specific bonding temperature. Therefore, it would have been necessary and thus obvious to look to the prior art for conventional bonding temperatures. Bansal and Malaney each provide this conventional teaching showing that it is known in the art to use a bonding temperature within a range of about 100 to about 150C (about 200 to 300F) when bonding polyethylene (see entire documents including column 8, lines 22-38 of Malaney and column 14, lines 37-52 of Bansal). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to apply heat at a temperature range of 200 to 300F, motivated by the expectation of successfully practicing the invention of Welchel.

Response to Arguments

17. Applicant's arguments filed 6/14/2007 have been fully considered but they are not persuasive.

Claims rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The applicant asserts that claims 10 and 20 are definite because no showing has been made that a skilled artisan would not understand what is encompassed by the phrase "high heat resistance." The examiner respectfully disagrees. The phrase is indefinite because the phrase has a different meaning to different individuals based on different interpretations. In other words, the phrase "high heat resistance" is subjective rather than definite. It is noted that the applicant failed to define the phrase, or even attempt to define the phrase.

The claim rejected under 35 U.S.C. 102(b) as being anticipated by USPN 5,616,408 to Oleszczuk or USPN 5,804,512 to Lickfield.

The applicant asserts that since the examiner stated that the article disclosed by the applied prior art "can" be considered identical to the claimed invention, the examiner merely speculates that the article disclosed by the applied prior art is identical to the claimed article. Applicant's argument appears to be based on the reasoning that the word "can" is normally used to merely indicate possibility. In response, the examiner contends that applicant's argument fails to address the substance of the rejection.

Art Unit: 1771

Although applicant's arguments center around the word "can" it is noted that the applicant failed to address the rest of the rejection wherein the examiner explains in detail how the article disclosed by the applied prior art is identical to the currently claimed article.

Applicant's failure to address that taught by the applied prior art is taken as an admission that the article taught by the applied prior art is identical to the claimed article.

Claims rejected under 35 U.S.C. 102(b) as being anticipated by USPN 6,022,818 to Welchel.

The applicant asserts that there is no evidence to support the conclusion that the article of the applied prior art (air-laid) is identical to or only slightly different than the claimed article (wet-laid). The examiner respectfully disagrees. As is well known to one skilled in the art, wet-laid mat and air-laid mats both consist of fibers having a random orientation and isotropic properties. Therefore, there is rationale tending to show that the claimed product appears to be the same or similar to that of the prior art. Although produced by a different process, the burden shifts to applicant to come forward with evidence establishing an unobvious difference between the claimed product and the prior art product. *In re Marosi*, 710 F.2d 798, 802, 218 USPQ 289, 292 (Fed. Cir. 1983)

The applicant asserts that a wet-laid mat is patentably distinct from an air-laid mat because the specification discloses that a wet process provides a more consistent weight per unit area (more random fiber orientation). Applicant's argument is not persuasive because the current claims do not refer to weight per unit area and because Welchel discloses that air-laid mats possess randomly deposited fibers (column 7, lines 54-62).

Art Unit: 1771

The applicant asserts that there is no support in any statute or case decision that “the patentability of a product does not depend on its method of production.” The examiner respectfully disagrees. The applicant is directed to MPEP 2113 wherein it is stated word-for-word that the patentability of a product does not depend on its method of production.

The applicant asserts that the “wet processed mat” limitation is not a product-by-process limitation. The examiner respectfully disagrees. A product-by-process claim is a product claim that defines the claimed product in terms of the process by which it is made. See MPEP 2173.05(p). Therefore, since the claimed product is defined in terms of the process (wet) by which it is made, the claim is clearly a product-by-process limitation.

Claims rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 5,616,408 to

Oleszczuk or USPN 5,804,512 to Lickfield, in view of USPN 6,022,818 to Welchel.

The applicant asserts that Oleszczuk and Lickfield do not teach directly bonding layers of wet processed mat. The examiner respectfully disagrees. The examiner admits that layers (14) and (16) are not directly bonded, but Oleszczuk and Lickfield each disclose that additional “supporting” (wet processed bicomponent staple fiber mat) layers may be added to the article (see column 8, lines 64-67 and the paragraph bridging columns 12 and 13 of Oleszczuk and column 5, lines 1-4 and column 10, lines 10-23 of Lickfield). Therefore, layer (14) and/or layer (16) would be directly bonded to another layer of wet processed mat.

The applicant asserts that there is no teaching or suggestion to provide directly bonded layers of wet processed mat with different fiber formulations. The examiner respectfully disagrees. Oleszczuk and Lickfield each disclose that additional “supporting” (wet processed bicomponent staple fiber mat) layers may be added to the composite article (see column 8, lines

Art Unit: 1771

64-67 and the paragraph bridging columns 12 and 13 of Oleszczuk and column 5, lines 1-4 and column 10, lines 10-23 of Lickfield), but the references do not appear to specifically mention at least one adjacent additional layer of different fiber formulation. Welchel discloses that it is known in the nonwoven laminate fabric art (column 1, lines 11-20) to directly bond an additional thermoplastic bicomponent staple nonwoven layer (105) with a different fiber formulation (smaller denier) to an adjacent thermoplastic bicomponent staple nonwoven layer (102), so that the surface is more aesthetically pleasing to the touch and/or more comfortable to the user (see entire document including Figure 2, column 2, lines 17-18, column 5, lines 35-65, and column 7, lines 4-20). It would have been obvious to one having ordinary skill in the art at the time the invention was made to directly bond an additional wet processed bicomponent staple fiber mat supporting layer, with a different fiber formulation (smaller denier), to the first or second layer of wet processed mat (14 or 16), because the additional wet processed bicomponent staple fiber mat supporting layer would allow the surface be more aesthetically pleasing to the touch and more comfortable to the user.

The applicant asserts that the “second top sheet” (105) of Welchel is not wet processed or directly bonded to another wet processed layer. The examiner contends that it is not necessary to rely on Welchel to teach the wet processing of the layers because Oleszczuk and Lickfield already disclose that additional “supporting” (wet processed mat) layers may be added to the composite article (see column 8, lines 64-67 and the paragraph bridging columns 12 and 13 of Oleszczuk and column 5, lines 1-4 and column 10, lines 10-23 of Lickfield). It is noted that Oleszczuk and Lickfield each disclose that the layers may be thermally bonded (see column 8, lines 55-63 of Oleszczuk and column 4, lines 59-67 of Lickfield) and that Welchel also discloses

Art Unit: 1771

that the thermoplastic bicomponent staple fiber nonwoven layers (105 and 102) are to be directly bonded (45-48).

In response, the applicant asserts that the cited portions refer to unspecified layers in an unspecified manner. The examiner respectfully disagrees. The “supporting” layers are clearly the outer plies because the inner ply is the meltblown layer, which is referred to as the barrier layer. Regarding unspecified location, regardless of the location of the additional supporting layers, the additional layer will necessarily be in contact with layer (14) or layer (16), resulting in first and second layers directly bonded together.

The applicant asserts that no evidence in the record supports the conclusion that directly bonding an additional wet processed bicomponent staple fiber mat supporting layer, with a different fiber formulation (smaller denier), to the first or second layer of wet processed mat (14 or 16), would allow the surface be more aesthetically pleasing to the touch and more comfortable to the user. The examiner respectfully disagrees. Welchel discloses that it is known in the nonwoven laminate fabric art (column 1, lines 11-20) to directly bond an additional thermoplastic bicomponent staple nonwoven layer (105) with a different fiber formulation (smaller denier) to an adjacent thermoplastic bicomponent staple nonwoven layer (102), so that the surface is more aesthetically pleasing to the touch and more comfortable to the user (see entire document including Figure 2, column 2, lines 17-18, column 5, lines 35-65, and column 7, lines 4-20). The applicant appears to be asserting that a wet-laid mat would not allow for said advantage, but fails to support this assertion. It is well settled that unsupported arguments are no substitute for objective evidence. In re Pearson, 494 F.2d 1399, 1405, 181 USPQ 641, 646 (CCPA 1974).

Art Unit: 1771

The applicant asserts that the applied prior art fails to teach or suggest applying sufficient heat and pressure to bond the layers together (claim 13). The examiner respectfully disagrees. Oleszczuk and Lickfield each disclose that the layers may be thermally bonded (see column 8, lines 55-63 of Oleszczuk and column 4, lines 59-67 of Lickfield). Therefore, "sufficient" heat and pressure is necessarily applied.

The applicant asserts that there is no motivation to combine the references. The examiner respectfully disagrees. Welchel discloses that it is known in the nonwoven laminate fabric art (column 1, lines 11-20) to directly bond an additional thermoplastic bicomponent staple nonwoven layer (105) with a different fiber formulation (smaller denier) to an adjacent thermoplastic bicomponent staple nonwoven layer (102), so that the surface is more aesthetically pleasing to the touch and more comfortable to the user (see entire document including Figure 2, column 2, lines 17-18, column 5, lines 35-65, and column 7, lines 4-20). It would have been obvious to one having ordinary skill in the art at the time the invention was made to directly bond an additional wet processed bicomponent staple fiber mat supporting layer, with a different fiber formulation (smaller denier), to the first or second layer of wet processed mat (14 or 16), because the additional wet processed bicomponent staple fiber mat supporting layer would allow the surface be more aesthetically pleasing to the touch and more comfortable to the user.

Regarding claims 2 and 14, the applicant asserts that none of the references disclose three layers comprising bicomponent fibers. The examiner respectfully disagrees. Layer (14), layer (16), and the additional "supporting" layer each comprise bicomponent fibers.

Art Unit: 1771

Regarding claims 6-8 and 16-18, the applicant asserts that Examiner's stated reason for making the combination does not establish the requisite motivation. The examiner respectfully disagrees. Oleszczuk and Lickfield are each silent with regards to specific layer thicknesses, therefore, it would have been necessary and thus obvious to look to the prior art for conventional thicknesses. Insley provides this conventional teaching showing that it is known in the nonwoven barrier fabric art to use layer thicknesses ranging from 0.02 to 4 cm (see entire document including column 3, lines 43-62 and column 11, lines 39-51). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to make the layers with a thickness ranging from 0.02 to 4 cm, motivated by the expectation of successfully practicing the invention of Oleszczuk and/or Lickfield.

Regarding claim 24, the applicant asserts that the rejection ignores the ordinary meaning of the word "composition." The examiner respectfully disagrees. The ordinary meaning of the word "composition" is "general makeup." The first and second layers have different fiber compositions because one layer is composed of fibers with a small diameter while the other layer is composed of fibers with a larger diameter. In addition, Oleszczuk and Lickfield each disclose that at least one of the outer webs may be treated with a treatment agent to render any one of a number of desired properties to the fabric (column 12, lines 31-43 of Oleszczuk and column 4, lines 1-17 of Lickfield). Therefore, the first and second layers would have different fiber compositions because the outer layer would be composed of fibers comprising a treatment agent while the inner layer would be composed of fibers not comprising a treatment agent.

Regarding claim 24, the examiner noted that the current claim simply states that the layers have different fiber compositions, not necessarily different from each other. For example,

since the fibers in each layer may comprise polyester, polyethylene, and/or PET (see column 8, lines 22-54 and column 12, lines 43-56 of Oleszczuk and column 3, lines 55-67 and column 10, lines 1-9 of Lickfield), the first and second layers have different fiber compositions.

In response, the applicant asserts that this interpretation is contrary to logic and contrary to what would be understood by a skilled artisan. The examiner respectfully disagrees. Firstly, it is well settled that unsupported arguments are no substitute for objective evidence. In re Pearson, 494 F.2d 1399, 1405, 181 USPQ 641, 646 (CCPA 1974). Secondly, the claim clearly does not limit the manner in which the first and second layers have different fiber compositions. Therefore, the broadest most reasonable interpretation in view of the specification is that this limitation includes the embodiment wherein the layers have different fiber compositions, not necessarily different from each other.

Claims rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 6,022,818 to Welchel in view of anyone of USPN 5,958,186 to Holm, USPN 6,692,606 to Cederblad, or USPN 6,761,710 to D'Acchioli.

The rejection states: Welchel discloses that the layers may be formed by air-laying (column 7, lines 54-62), but Welchel does not appear to specifically mention a wet-laid process. In the event that it is shown that an air-laid mat is patentably distinct from a wet-laid mat, Holm, Cederblad, and D'Acchioli each disclose that it is known in the art to form mats by a wet-laid or dry-laid process (see entire documents including column 1, lines 10-29 of Holm, column 4, lines 37-50 of Cederblad, and column 3, lines 14-40 of D'Acchioli). It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the mat from any suitable nonwoven material, such as dry-laid or wet-laid, because it has been held to be within

Art Unit: 1771

the general skill of a worker in the art to select a known material on the basis of its suitability and desired characteristics.

In response, the applicant asserts that there is no case decision in support (evidence) of this substitution. The examiner respectfully disagrees. The substitution of known equivalent structures involves only ordinary skill in the art. *In re Fout* 213 USPQ 532 (CCPA 1982); *In re Susi* 169 USPQ 423 (CCPA 1971); *In re Siebentritt* 152 USPQ 618 (CCPA 1967); *In re Ruff* 118 USPQ 343 (CCPA 1958). When a patent claims a structure already known in the prior art that is altered by the mere substitution of one element for another known in the field, the combination must do more than yield a predictable result. **KSR v. Teleflex**

The applicant asserts that Holm teaches away from the combination because the alleged goal of Holm is to produce an article of natural fibers. The examiner respectfully disagrees. The rejection does not suggest using the fiber material disclosed by Holm. Therefore, the argument is without merit.

Regarding claim 25, the applicant asserts that Welchel does not teach or suggest a third layer of bicomponent fibers. The examiner respectfully disagrees. Welchel discloses an article comprising a first layer of air-laid processed mat (114), a second layer of air-laid processed mat (106), and a third layer of air-laid processed mat (108), wherein said layers comprise thermoplastic polymer staple fibers and thermoplastic bicomponent fibers (see entire documents including Figure 2, column 5, lines 35-65 and column 7, lines 4-21). Welchel discloses that the layers may be thermally bonded (column 7, lines 22-53). It is noted that layer (104) may comprise cellulosic fibers, but this is not relevant because the others layers are relied upon for the rejection.

Conclusion

18. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew T. Piziali whose telephone number is (571) 272-1541. The examiner can normally be reached on Monday-Friday (8:00-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on (571) 272-1478. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 1771

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

atp

970 7/11/07
ANDREW PIZIALI
PRIMARY EXAMINER